

Up-and-Coming Voices: Entrepreneurship and Leadership in Psychological Science

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[Small Entrepreneurs and the Pandemic Crisis: The Role of Psychological Resilience and Spiritual Mindset](#) • [Facilitators and Obstacles at the Lowest Rung in the Leadership Journey](#) • [The Association Between Leadership Styles, Trait Mindfulness, and Empathy](#)

During the 2022 APS Annual Convention in Chicago last May, students and early- to mid-career researchers had the opportunity to share their research with the scientific community during several poster sessions. For this issue on entrepreneurship in psychological science, we asked three researchers to share their findings, the study's contributions to the field, and their next steps regarding their research.

[The 2023 APS Annual Convention will take place in Washington, D.C., on May 25–28, 2023.](#)

Small Entrepreneurs and the Pandemic Crisis: The Role of Psychological

Resilience and Spiritual Mindset

Research Proposal Poster

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Small Entrepreneurs and the Pandemic Crisis: The Role of Psychological Resilience and Spiritual Mindset



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Introduction

Spirituality can be understood as a capital based on individual capitalizer created by the application of intrinsic spiritual values, in order to use and develop human potential. The literature points out that spiritual capital increasingly influences and motivates entrepreneurs. The COVID-19 pandemic has had significant effects on economies (Fernandes, 2020), and, almost three years later, it is difficult to estimate the economic impact (Zhang et al., 2020). The pandemic restrictions were more severe on micro and small enterprises (Kotamky, 2020; Shafi et al., 2020). For instance, this type of business, according to Liu and Cheng (2018), have lower capital reserves, less inventory, and lower productivity, rendering them more vulnerable to crises. Considering the changes in business processes caused by the pandemic, micro and small companies may prove to be less resilient and more vulnerable when dealing with the various associated costs and barriers (Kotamky, 2020). With the aim to fill this gap and in accordance with recent increase in scholarly attention devoted to exploration of the role of psychological resources in entrepreneurship (Babaluk et al., 2018), our study supplies unique insight into psychological resources as predictors of entrepreneurial success. Moreover, Psychology conceptualizes crisis as a life event that an individual perceives as stressful to the extent that normal coping mechanisms are insufficient.

In this paper, we investigate whether spirituality has a mediating role between psychological resilience, optimism and entrepreneurial success, and verify the gender differences. Our hypotheses are quantitatively tested on a sample of 253 micro and small Portuguese business owners during the pandemic crisis. The main findings highlight that, while optimism and psychological resilience present a positive and significant relationship with entrepreneurial success in both genders, spirituality only impacts female entrepreneurial success. Our study theoretically and empirically shows that the psychological resources and spirituality can be incorporated into new or existing programs designed to provide entrepreneurs with information on coping skills and how to engage in positive reorientation and reappraisal. In so doing, it improves the knowledge of the importance of psychological resources for the micro and small business' recoverability during the pandemic, which is deeply rooted in the entrepreneurial ability to excel during adversity.

Hypothesis and Methods

H1: For both genders – Psychological resilience has a significant and positive effect on entrepreneurial success.

H2: For both genders – Optimism has a significant and positive effect on entrepreneurial success.

H3: For both genders – Spirituality mediates the positive effect between psychological resilience and entrepreneurial success.

H4: For both genders – Spirituality mediates the positive effect between optimism and entrepreneurial success.

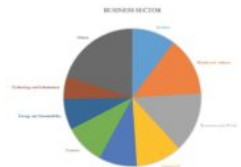
To analyze the proposed model, Structural Equation Modelling was used. We used IBM SPSS, Amos 26 for the estimation values. The following indices are used: the Comparative Fit Index (CFI) > 0.90; the Adjusted Goodness of Fit (GFI) > 0.95; Hair et al., 2010; the Root Square Error of Approximation (RMSEA) < 0.05; the Tucker-Lewis Index (TLI) > 0.90; Aung, 2012; and the Expected Cross Validation Index (ECVI); the lower the index, the better the fit and the better the model can predict the future covariance of the sample (Browne and Cudeck, 1992), due to, according to Kline (2011), the sample is greater than 200. Lastly, multiple squared correlations (R²) were made to demonstrate how much of the variation in the independent variables is explained by the predictors.

Materials

To explore the changes during the COVID-19 pandemic, we collected data generated by a survey of the entrepreneurs of micro and small Portuguese firms. We followed the European definition of micro enterprise (less than 10 workers) and small enterprise (less than 50 workers). Among the 28 countries of the union, the vast majority (93%) of SMEs are micro, while another 5.9% are small companies. Portugal is in second place with the aforementioned 99.3% (more specifically around 1.2 million micro-enterprises). These values correspond to around 30% of GDP and 40% of employment. The data collection process started with an email invitation to participate in an online survey. The target was the entrepreneur (the owner) because of their desirable capacity to provide data on firm-related as well as personal-oriented questions. We received 253 responses from a universe of 800 emails sent (response rate 31.44%). Regarding nationality, the random sample is composed of a majority of Portuguese entrepreneurs, 5.6% Brazilians and 0.0% Colombians, with age varying between 24 and 73, and average age of 43 years (SD = 11.0). We can consider that this is an equitable sample in terms of gender, with 47.2% males and 52.8% females, and more than half (64.5%) have higher education. With regard to the business sector, 14.2% are dedicated to restaurant and hotels, 13.7% to health and wellness services, 10.7% are dedicated to food retail, 10.3% to services, 9.4% to the tourism sector and 9.0% to craftsmanship.

Gender	N	%
Male	110	47.2
Female	123	52.8

Subjective Entrepreneurial Success (SES, $\alpha = 0.79$) was measured through the homonymous scale developed by Dej et al. (2009). Psychological Resilience (PsyResil, $\alpha = 0.81$) and Optimism (Opt, $\alpha = 0.91$) scales were extracted from the Entrepreneurial Orientation Questionnaire (Sánchez-García, 2010). Intrinsic Spirituality (Spirit, $\alpha = 0.95$). We used the modified six-item Intrinsic Spirituality Scale (Hodge, 2003) that measures the degree to which spirituality functions as an individual's master motive, for theistic and non-theistic populations, both within and outside of religious frameworks. To control for other factors that may influence main hypothesized relationships, we used several control variables drawn from the extant literature. Specifically, we controlled for if the person considers spirituality as a resource to cope with crisis (dichotomous variable), business sector, and age of the business.



Results

Model fit indices for the proposed model resulted in: CFI = 0.994; TLI = 0.928; GFI = 0.975; RMSE = 0.031; ECVI = 0.444. These results reveal a good fit and above the common standards. Regarding the variance of the dependent variable, the R² explains in the group of females 62% and in the group of males 53%. In this way, the results achieved allow us to recognize the necessary theoretical coherence. We show in Table 1 the correlations, which reveal that the model and hypothesis interactions maintain the analysis criteria.

Variable	1	2	3	4	5	6
SES	0.79					
PsyResil	0.12*	0.81				
Opt	0.15*	0.12*	0.81			
Spirit	0.18*	0.15*	0.12*	0.81		
Crisis	0.10*	0.10*	0.10*	0.10*	0.81	
Age	0.05	0.05	0.05	0.05	0.05	0.81
Sector	0.02	0.02	0.02	0.02	0.02	0.02

In one hand, the Optimism, for instance, has a stronger regression value, for both gender females and males. Intrinsic Spirituality, on the other hand, has a strong value only for females. Psychological Resilience effect on entrepreneurial success is drastically stronger and significant on males. Regarding our control variables, business operating effect is positive and significant on Entrepreneurial Success in females, and the business sector in males. Spirit_Crisis presents a significant effect on entrepreneurial success for both males and females.

Model	SES	PsyResil	Opt	Spirit	Crisis	Age	Sector
Model 1	0.53	0.12	0.15	0.18	0.10	0.05	0.02
Model 2	0.53	0.12	0.15	0.18	0.10	0.05	0.02
Model 3	0.53	0.12	0.15	0.18	0.10	0.05	0.02
Model 4	0.53	0.12	0.15	0.18	0.10	0.05	0.02

Table 2 presents the results obtained from our path model by females and males. Intrinsic Spirituality mediates an effect between Psychological Resilience and Entrepreneurial Success in both genders, but a very positive and significant in females. Although less strong, the relationship between Optimism and Entrepreneurial Success is also mediated by Spirituality only in females.

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The biggest difference in response comes from Spirituality, with a mean difference of 0.553 (significant, $p < 0.001$), and the smallest from Entrepreneurial Success (optifem, $p < 0.001$).

Conclusions

Our study proposes that a plausible explanation for entrepreneurial success may lie in the psychological resources during the pandemic and not just economic gains. More specifically, in the idea that spirituality can be a mediator of resilience and optimism to overcome the implications caused by crisis scenarios. Hence, following the lead of recent researchers who argue that psychological resources are positively related to entrepreneurial success (Williams et al., 2013; Babaluk et al., 2018), in addition to pointing out the need to dig into spirituality as a predictor of positive changes after a crisis (e.g., Prati and Perramoni, 2009) and that individual beliefs lead to success and achievement, in addition to acquiring the form of a coping strategy, we investigate how optimism, psychological resilience and spirituality can predict the entrepreneurial success of small business owners and we verify the gender differences. This study presents certain limitations that could be overcome in future research. Future studies could further explore whether – and to what extent – entrepreneurial success is related to the Self-Determination Theory (Deci and Ryan, 2000; Balaluk et al., 2021). Moreover, we only use two separate variables of psychological capital as resources for success. Future studies could adopt a more nuanced approach, by using the introspective psychological inventory – Psychological Capital Questionnaire (Luthans et al., 2007). Psychological capital is, in a way, an expansion of the concept of “economic capital”, but it differs from human capital or social capital (Luthans et al., 2004). Psychological capital components are valuable and determinant personal resources for small business success (Bunyan et al., 2017; Ali, 2021). Finally, in common with previous studies on entrepreneurial success which rely on cross-sectional data (e.g., Mikolajuk et al., 2014; Jabeel and Hamid, 2015; Durbek, 2017), we find that the nature of cross-sectional data makes it difficult to detect whether success that lasts over time. Hence, it would be also interesting for subsequent studies to further explore whether psychological resources could significantly influence micro and small entrepreneurs' entrepreneurial success, using of a longitudinal approach or qualitative techniques.

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What did the research reveal that you didn't already know?

This research (now [published in *Frontiers in Psychology*](#)) underlined the importance of psychological resources, such as resilience, and the spiritual mindset of micro and small entrepreneurs in facing the COVID-19 pandemic. Our study revealed that a plausible explanation for entrepreneurial success may lie in the psychological resources during the pandemic and not just economic gains—more specifically, in the idea that spirituality can be a mediator of resilience and optimism to overcome the implications caused by crisis scenarios. In addition, this research revealed that for women entrepreneurs, spirituality had a strong and positive mediating effect between psychological resilience and the success of their entrepreneurial activity.

How might your findings contribute to the broader research on entrepreneurship and leadership in psychological science?

As a contribution to entrepreneurship and leadership in psychological science, this research showed that during a crisis (a pandemic, in particular) individual beliefs and resilience are crucial to entrepreneurial

success. This study also revealed the need for future research that uses longitudinal approaches and qualitative techniques, assesses behavioral variations and personal beliefs that may influence the development of the local economy, and promotes an idiosyncratic perspective of the entrepreneur.

What are your next steps regarding this research?

This research brought promising findings to support further assessing the influence of these variables for a “spiritually informed economy.” We would like to extend the research to a particular population: immigrant-entrepreneurs. This group tries to survive in their “host society” and often finds in different capitals—psychological, cultural, spiritual, human, social—the necessary resources to strengthen entrepreneurial activity. In addition, we are also interested in comparing whether the results might change in different countries with different nationalities and cultural backgrounds (e.g., ethnic, religious affiliations).

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Facilitators and Obstacles at the Lowest Rung in the Leadership Journey

Shubhra Prateek Gaur, MICA, Ahmedabad

What did the research reveal that you didn't already know?

An insight I did not expect was that although the conception of leadership and facilitators for career growth leadership for men and women were by and large the same, concerns or hindrances differed extensively. Both men and women gave importance to multitasking, perseverance, consistency, empathy, perceptiveness, flexibility, openness to learning, and effective communication skills as facilitators. However, obstacles to leadership that males reported were largely work related and people related, whereas females primarily expressed obstacles related to implicit social bias and personal factors like hypersensitivity, dependency, paranoia, procrastination, not being a team player, and introversion.

How might your findings contribute to the broader research on entrepreneurship and leadership in psychological science?

The findings have implications for a) future studies to probe into identifying ways to overcome perceived personal shortcomings in women; and b) creating training and development modules. These modules may include fostering leadership skills in women working in corporate management positions and enhancing self-efficacy for leadership.

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What are your next steps regarding this research?

My next research project is focusing on whether these self-related hindrances are real or perceived and the strategies men and women use to overcome obstacles to further their career growth and leadership aspirations.

The Association Between Leadership Styles, Trait Mindfulness, and Empathy

Arina Malekanfard and Daniel Lim, Adelphi University

What did the research reveal that you didn't already know?

Our research aimed to explore the association between leadership styles, trait mindfulness, and empathy. The findings revealed a surprising lack of correlation between the laissez-faire leadership style and both trait mindfulness and empathy levels. Laissez-faire leadership style is an approach where the leader provides the team members minimal guidance and involvement and allows them to work completely independently. The absence of a correlation between laissez-faire leadership style and mindfulness and empathy is an intriguing discovery that highlights the need for further research in this area.

How might your findings contribute to the broader research on entrepreneurship and leadership in psychological science?

By examining the relationship between these variables, the research sheds light on the ways in which different leadership styles may influence the psychological well-being and effectiveness of leaders and entrepreneurs. The findings provide a foundation for the development of new models and theories that integrate these important psychological factors into our understanding of entrepreneurship and leadership. Ultimately, this research can help inform the development of leadership training programs and interventions that aim to enhance the effectiveness of leaders and entrepreneurs.

What are your next steps regarding this research?

The next steps in this research would involve investigating the underlying causes of mindfulness and the ability to take action with awareness. Future studies could examine the association between individuals' characteristics and mindfulness levels. This will help to determine whether individuals with dominant characteristics have difficulty describing their feelings mindfully because of their characteristics or their dominant characteristics result from a lack of mindfulness. Additionally, future research could explore the relationship between dominant characteristics and the ability to take action mindfully, as this correlation was not examined in the current study. This research can provide a deeper understanding of the factors that influence mindfulness and how it relates to leadership and entrepreneurial outcomes.

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